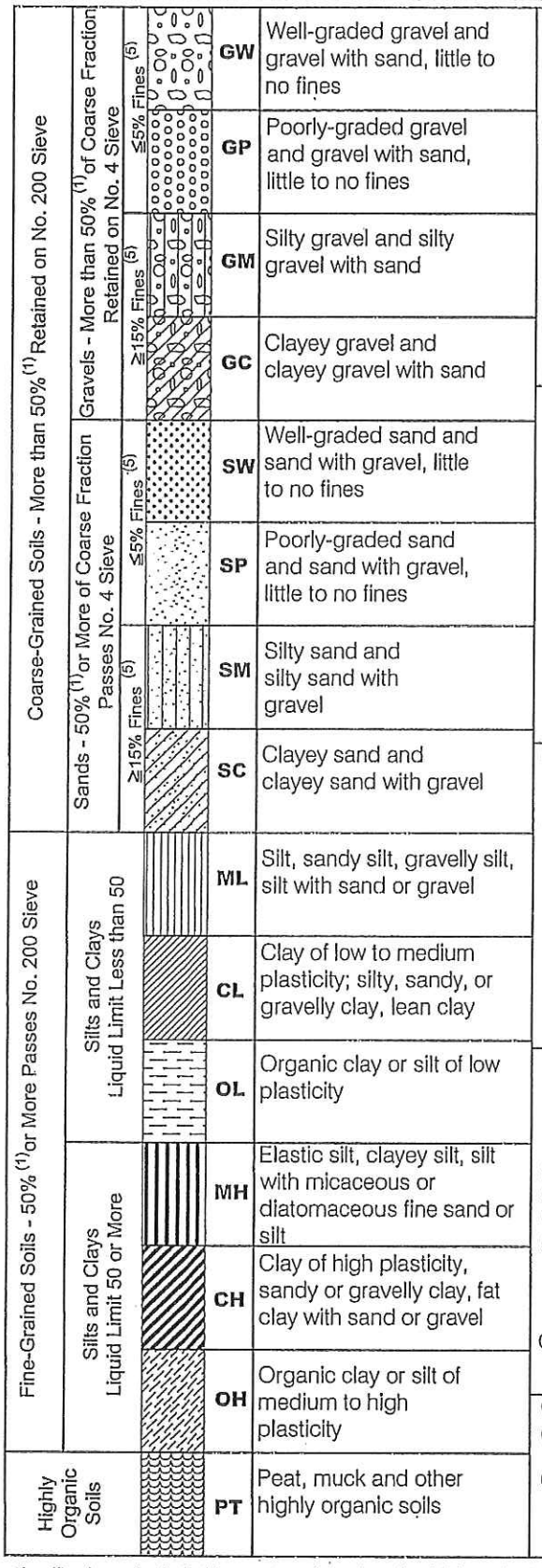
APPENDIX

Exploration Logs



Terms Describing Relative Density and Consistency

Coarse-Grained Soils	Density	SPT (2) blows/foot
	Very Loose	0 to 4
	Loose	4 to 10
	Medium Dense	10 to 30
	Dense	30 to 50
	Very Dense	>50

Fine-Grained Soils	Consistency	SPT (2) blows/foot
	Very Soft	0 to 2
	Soft	2 to 4
	Medium Stiff	4 to 8
	Stiff	8 to 15
	Very Stiff	15 to 30
	Hard	>30

Test Symbols

G = Grain Size
M = Moisture Content
A = Atterberg Limits
C = Chemical
DD = Dry Density
K = Permeability

Component Definitions

Descriptive Term	Size Range and Sieve Number
Boulders	Larger than 12"
Cobbles	3" to 12"
Gravel	3" to No. 4 (4.75 mm)
Coarse Gravel	3" to 3/4"
Fine Gravel	3/4" to No. 4 (4.75 mm)
Sand	No. 4 (4.75 mm) to No. 200 (0.075 mm)
Coarse Sand	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	Smaller than No. 200 (0.075 mm)

(3) Estimated Percentage

Component	Percentage by Weight
Trace	<5
Few	5 to 10
Little	15 to 25
With	- Non-primary coarse constituents: ≥ 15% - Fines content between 5% and 15%

Moisture Content

Dry - Absence of moisture, dusty, dry to the touch

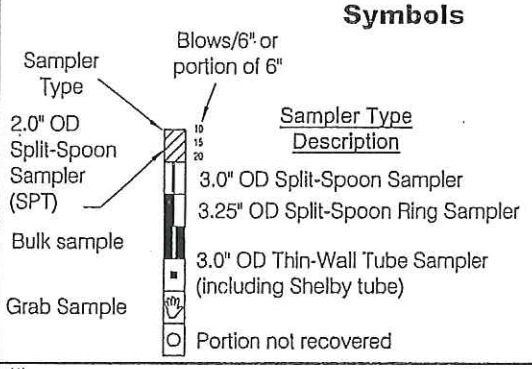
Slightly Moist - Perceptible moisture

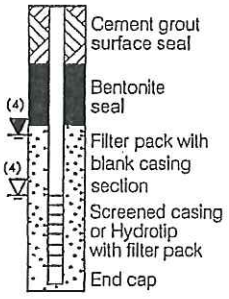
Moist - Damp but no visible water

Very Moist - Water visible but not free draining

Wet - Visible free water, usually from below water table

Symbols





(1) Percentage by dry weight
(2) (SPT) Standard Penetration Test (ASTM D-1586)
(3) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)
(4) Depth of ground water
ATD = At time of drilling
Static water level (date)
(5) Combined USCS symbols used for fines between 5% and 15%

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.

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EXPLORATION LOG KEY

FIGURE A1

blockslog_key.dwg LAYOUT: Layout2

LOG OF EXPLORATION PIT NO. EP-1

Depth (ft)	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered. **DESCRIPTION**
	Sod / Topsoil
1	**Weathered Vashon Lodgement Till** Loose, moist, reddish brown, silty SAND, with gravel, scattered roots, scattered cobbles.
2	Becomes medium dense and tan, with no roots below 1.5 feet.
3	**Vashon Lodgement Till**
4	Very dense, moist, grayish tan, silty SAND, with gravel (SM).
5	
6	
7	Bottom of exploration pit at depth 6 feet No seepage. No caving.
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Eaglemont
Monroe, WA

Logged by: TJP
Approved by: TJP

Associated Earth Sciences, Inc.

Project No. KE120280A

7/10/12

KCTP3 120280.GPJ July 12, 2012

LOG OF EXPLORATION PIT NO. EP-2

Depth (ft)	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered. **DESCRIPTION**
	Sod / Topsoil
1	**Weathered Vashon Lodgement Till**
2	Loose, moist, reddish brown, silty SAND, with gravel (SM); scattered cobbles; abundant roots from 0 to 2 feet.
3	Becomes medium dense ant tan below 2.5 feet.
4	**Vashon Lodgement Till**
5	Very dense, moist, grayish tan, silty SAND, with gravel (SM).
6	
7	Bottom of exploration pit at depth 6 feet No seepage. No caving.
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LOG OF EXPLORATION PIT NO. EP-3

Depth (ft)	DESCRIPTION
	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.
	Sod / Topsoil
1	**Weathered Vashon Lodgement Till**
2	Loose, moist, reddish brown, silty SAND, with gravel (SM).
	Becomes medium dense and tan below 2.5 feet.
3	**Vashon Lodgement Till**
4	Very dense, moist, grayish tan, silty SAND, with gravel, scattered cobbles.
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6	Bottom of exploration pit at depth 5.5 feet No seepage. No caving.
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7/10/12

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LOG OF EXPLORATION PIT NO. EP-4

Depth (ft)

This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

DESCRIPTION

Sod / Topsoil

Weathered Vashon Lodgement Till

Loose, moist, reddish brown, silty SAND, with gravel (SM).
Becomes medium dense and tan below approximately 2 feet, scattered cobbles.

Vashon Lodgement Till

Very dense, moist, grayish tan, silty SAND, with gravel (SM); scattered cobbles.

Bottom of exploration pit at depth 5 feet
No seepage. No caving.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

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LOG OF EXPLORATION PIT NO. EP-5

This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplification of actual conditions encountered.

Depth (ft)	DESCRIPTION
	Forest Duff / Topsoil
1	**Weathered Vashon Lodgement Till**
	Loose, very moist, brown, silty SAND, with gravel, abundant roots (SM).
2	
	Wet at base.
3	**Vashon Lodgement Till**
	Very dense, very moist, grayish tan, silty SAND, with gravel (SM).
4	Becomes moist, contains scattered cobbles and boulders.
5	
6	Bottom of exploration pit at depth 5.5 feet
	Slow seepage at 3 feet. No caving.
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LOG OF EXPLORATION PIT NO. EP-6

Depth (ft)

This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered.

DESCRIPTION

Forest Duff / Topsoil

Weathered Vashon Lodgement Till

1 Loose, very moist, reddish brown, silty SAND, with gravel, abundant roots (SM).

2 Wet at base.

Vashon Lodgement Till

3 Very dense, very moist, grayish tan, silty SAND, with gravel, scattered cobbles (SM).

4

5

6 Bottom of exploration pit at depth 5.5 feet
No seepage but sediments at base of weathered soil horizon (2.5 feet depth) appear close to saturated. No caving.

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LOG OF EXPLORATION PIT NO. EP-7

Depth (ft)	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered. **DESCRIPTION**
	Forest Duff / Topsoil
1	**Weathered Vashon Lodgement Till**
	Loose, very moist, reddish brown, silty SAND, with gravel (SM).
2	Becomes very moist below 1.5 feet.
	Abundant roots from 0 to 2.5 feet.
3	**Vashon Lodgement Till**
	Dense to very dense, very moist, grayish tan, silty SAND, with gravel, scattered cobbles (SM).
4	
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6	Bottom of exploration pit at depth 5.5 feet
	No seepage. No caving.
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LOG OF EXPLORATION PIT NO. EP-8

Depth (ft)	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered. **DESCRIPTION**
	Forest Duff / Topsoil
1	**Weathered Vashon Lodgement Till** Loose, very moist, reddish brown, silty SAND, with gravel, scattered cobbles (SM).
2	Abundant roots from 0 to 2 feet. Becomes medium dense and tan below 2 feet.
3	**Vashon Lodgement Till** Very dense, very moist, grayish tan, silty SAND, with gravel, scattered cobbles (SM).
4	Becomes wet at approximately 4 feet.
5	
6	
7	Bottom of exploration pit at depth 6.5 feet Slow seepage at 4 feet. No caving.
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LOG OF EXPLORATION PIT NO. EP-9

Depth (ft)

This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered.

DESCRIPTION

Forest Duff / Topsoil

Weathered Vashon Lodgement Till

Loose, very moist, reddish brown, silty SAND, with gravel, scattered cobbles (SM).
Abundant roots from 0 to 2 feet.
Becomes medium dense and tan below 2 feet.

Vashon Lodgement Till

Very dense, very moist, grayish tan, silty SAND, with gravel, scattered cobbles, and boulders (SM).

Bottom of exploration pit at depth 6 feet
No seepage. No caving.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

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LOG OF EXPLORATION PIT NO. EP-10

Depth (ft)	This log is part of the report prepared by Associated Earth Sciences, Inc. (AESI) for the named project and should be read together with that report for complete interpretation. This summary applies only to the location of this trench at the time of excavation. Subsurface conditions may change at this location with the passage of time. The data presented are a simplfication of actual conditions encountered. **DESCRIPTION**
	Forest Duff / Topsoil
1	**Weathered Vashon Lodgement Till** Loose, moist to very moist, reddish brown, silty SAND, with gravel, abundant roots (SM).
2	**Vashon Lodgement Till**
3	Very dense, very moist, grayish tan, silty SAND, with gravel, scattered cobbles (SM).
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6	Bottom of exploration pit at depth 5.5 feet No seepage. No caving.
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